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ATTORNEY DOCKET NO. 14114.0342U3
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)	
)	
Fields <i>et al.</i>)	Art Unit: Unassigned
)	
Application No. 10/738,443)	Examiner: Unassigned
)	
Filing Date: December 16, 2003)	Confirmation No. Unassigned
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For: SYNTHETIC PEPTIDES)	
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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

NEEDLE & ROSENBERG, P.C.
Customer Number 23859

Sir:

Pursuant to the requirements of 37 C.F.R. § 1.56, submitted herewith on the accompanying Form PTO-1449 is a listing of documents known to Applicants and/or their attorneys. All of the documents cited were cited by or submitted to the Patent Office in Application No. 10/031,088, filed January 14, 2002 (abandoned), to which the present application claims priority. Pursuant to 37 C.F.R. § 1.98(d), copies of these documents are not enclosed.

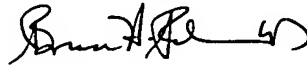
This Information Disclosure Statement is believed to be filed in a timely manner pursuant to 37 C.F.R. § 1.97(b)(1)(3), in that a first Office Action on the merits of the present patent application has not yet been mailed to Applicants.

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APPLICATION NO. 10/738,443

No fee is believed to be due; however, the Commissioner is hereby authorized to charge any additional fees which may be required or to credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,

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CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence, including any items indicated as attached or included, is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.



Bruce H. Becker, M.D.

5/14/04

Date



Form PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF INFORMATION CITED BY APPLICANT (Use as many sheets as necessary)				Complete if Known			
				Application Number		10/738,443	
				Filing Date		December 16, 2003	
				First Named Inventor		Fields	
				Group Art Unit		Unassigned	
Examiner Name		Unassigned					
U.S. PATENT DOCUMENTS							
Examiner's Initials	Cite No.	Document No.	Date	Name	Class	Subclass	Filing Date (if appropriate)
	A1	5,426,039	06/20/95	Wallace et al.	435	91.2	
	A2	4,683,202	07/28/87	Mullis et al.	435	91	
	A3	4,391,904	07/05/83	Litman et al.	435	7	
FOREIGN PATENT DOCUMENTS							
Examiner's Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code	Date	Name	Translation Yes/No		
	A4	WO 97/40147	10/30/97	CDC (PCT)			
	A5	WO 89/06658	07/27/89	University of North Carolina (PCT)			
	A6	WO 01/05243	01/25/01	AMPC, Inc. (PCT)			
NON-PATENT DOCUMENTS							
Examiner's Initials	Cite No.	Non-Patent Citations (include Author, Title, Publisher, Relevant Pages, Date and Place of Publication)					
	A7	Barringer et al., "Blunt-end and single-strand ligations by <i>Escherichia coli</i> ligase: influence on an in vitro amplification scheme," <i>Gene</i> 89:117-122 (1990)					
	A8	Beaucage and Caruthers, "Deoxynucleoside Phosphoramidites -- A New Class of Key Intermediates for Deoxypolynucleotide Synthesis," <i>Tetrahedron Letts.</i> 22(20):1859-1862 (1981)					
	A9	Chang et al., "Antigenic Heterogeneity of the Hepatitis C Virus NS4 Protein as Modeled with Synthetic Peptides," <i>Virology</i> 257:177-190 (1999)					
	A10	Gillam and Smith, "Site-Specific Mutagenesis Using Synthetic Oligodeoxyribonucleotide Primers: I. Optimum Conditions and minimum Oligodeoxyribonucleotide Length," <i>Gene</i> 8:81-97 (1979)					
	A11	Guatelli et al., "Isothermal, <i>in vitro</i> amplification of nucleic acids by a multienzyme reaction modeled after retroviral replication," <i>Proc. Natl. Acad. Sci. USA</i> 87:1874-1878 (March 1990)					
	A12	Jia et al., "Host Antibody Response to Viral Structural and Nonstructural Proteins after Hepatitis A Virus Infection," <i>J. Infect. Diseases</i> 165:273-280 (1992)					
	A13	Khudyakov et al., "Antigenic Epitopes of the Hepatitis A Virus Polyprotein," <i>Virology</i> 260(2):260-272 (1999)					
	A14	Kusov et al., "Synthetic peptide 62-75 VP3 of hepatitis A virus induces virus-binding antibodies," <i>Vopr. Virusol.</i> 36(2):114-117 (1991) (Abstract)					
	A15	Kwoh et al., "Transcription-based amplification system and detection of amplified human immunodeficiency virus type 1 with a bead-based sandwich hybridization format," <i>Proc. Natl. Acad. Sci. USA</i> 86:1173-1177 (February 1989)					
	A16	Landegren et al., "A Ligase-Mediated Gene Detection Technique," <i>Science</i> 241:1077-1080 (August 26, 1988)					

	A17	Langer, "New Methods of Drug Delivery," <i>Science</i> 249:1527-1533 (September 28, 1990)
	A18	Lomeli et al., "Quantitative Assays Based on the Use of Replicable Hybridization Probes," <i>Clin. Chem.</i> 35(9):1826-1831 (1989)
	A19	Maxam and Gilbert, "Sequencing End-Labeled DNA with Base-Specific Chemical Cleavages," <i>Methods Enzymol.</i> 65(1):499-560 (1980)
	A20	Merrifield, "Solid Phase Peptide Synthesis. I. The Synthesis of a Tetrapeptide," <i>J. Am. Chem. Soc.</i> 85:2149-2154 (July 20, 1963)
	A21	Needham-VanDevanter et al., "Characterization of an adduct between CC-1065 and a defined oligodeoxynucleotide duplex," <i>Nucl. Acid. Res.</i> 12(15):6159-6168 (1984)
	A22	Needleman and Wunsch, "A General Method Applicable to the Search for Similarities in the Amino Acid Sequence of Two Proteins," <i>J. Mol. Biol.</i> 48:443-453 (1970)
	A23	Pearson and Regnier, "High-Performance Anion-Exchange Chromatography of Oligonucleotides," <i>J. Chrom.</i> 255:137-149 (1983)
	A24	Pearson and Lipman, "Improved tools for biological sequence comparison," <i>Proc. Natl. Acad. Sci. USA</i> 85:2444-2448 (April 1988)
	A25	Ping et al., "Antigenic Structure of Human Hepatitis A Virus Defined by Analysis of Escape Mutants Selected against Murine Monoclonal Antibodies," <i>J. Virol.</i> 66(4):2208-2216 (1992)
	A26	Roberts et al., "Generation of an antibody with enhanced affinity and specificity for its antigen by protein engineering," <i>Nature</i> 328:731-734 (August 20, 1987)
	A27	Robertson et al., "Antibody Response to Nonstructural Proteins of Hepatitis A Virus Following Infection," <i>J. Med. Virol.</i> 40:76-82 (1993)
	A28	Robertson et al., "Serological approaches to distinguish immune response to hepatitis A vaccine and natural infection," <i>Vaccine</i> 10(Supp. 1):S106-S109 (1992)
	A29	Smith and Waterman, "Comparison of Biosequences," <i>Adv. Appl. Math.</i> 2:482-489 (1981)
	A30	Sooknanan and Malek, "NASBA: A detection and amplification system uniquely suited for RNA," <i>Biotechnology</i> 13:563-564 (June 1995)
	A31	Van Brunt, "Amplifying Genes: PCR and Its Alternatives," <i>Bio/Technology</i> 8:291-294 (April 1990)
	A32	Wolff et al., "Direct Gene Transfer into Mouse Muscle in Vivo," <i>Science</i> 247:1465-1468 (March 1990)
	A33	Wu and Wallace, "The Ligation Amplification Reaction (LAR)—Amplification of Specific DNA Sequences Using Sequential Rounds of Template-Dependent Ligation," <i>Genomics</i> 4:560-569 (1989)
Examiner Signature:		Date Considered:
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		